Pennsylvania Public School Employees' Retirement System

Roster of Investment Managers, Advisors, and Consultants

As of December 31, 2018

List of PSERS' Internally Managed Investment Portfolios

- Bloomberg Commodity Index Overlay
- Funded U.S. Long Treasuries
- Gold Fund
- Infrastructure Index
- LIBOR-Plus Short-Term Investment Pool
- MSCI All Country World Index ex. US
- · Premium Assistance
- · Private Debt Internal Program
- Private Equity Internal Program
- Private Markets and Real Estate Pennsylvania In-House Co-Investment Program
- Public Markets In-House Co-Investments Program
- · Real Estate Internal Program
- REIT Index
- Risk Parity
- S&P 400 Index
- S&P 500 Index
- S&P 600 Index
- S&P MLP Index
- Short-Term Investment Pool
- Treasury Inflation Protection Securities
- · U.S. Core Plus Fixed Income
- U.S. Treasuries

List of PSERS' External Investment Managers, Advisors, and Consultants

Absolute Return Managers

- Aeolus Capital Management, Ltd.
- BlackRock Financial Management, Inc.
- Bridgewater Associates, LP
- Brigade Capital Management
- Capula Investment Management, LLP
- Carlyle Aviation Management Limited
- Caspian Capital, LP
- · Garda Capital Partners, LP
- HS Group Ltd.
- Independence Reinsurance Partners GP, LLC
- Nephila Capital, Ltd.
- Oceanwood Capital Management, Ltd.
- One William Street Capital Management, LP
- Pacific Investment Management Company
- Perry Capital, LLC
- · Two Sigma Advisors, LP
- Venor Capital Management, LP

Publicly-Traded Real Estate Securities Advisors

Security Capital Research & Management, Inc.

Non-U.S. Equity Managers

- Acadian Asset Management, LLC
- Baillie Gifford Overseas, Ltd.
- · BlackRock Financial Management, Inc.
- ECM Feeder Fund 2, L.P.
- Marathon Asset Management Limited
- Oberweis Asset Management, Inc.
- QS Batterymarch Financial Management, Inc.
- · Steadview Capital Partners, L.P.
- The Children's Investment Fund, LP
- · Wasatch Advisors, Inc.

Commodity Managers

- Denham Capital Management, LP
- Gresham Investment Management, LLC
- Pacific Investment Management Company
- Wellington Management Company, LLP

Global Fixed Income Managers

U.S. Core Plus Fixed Income Managers

- BlackRock Financial Management, Inc.
- Pugh Capital Management, Inc.
- SEI Investment Management Corporation

High Yield/Private Credit Managers

- Apollo Global Management, LLC
- Avenue Capital Group
- Bain Capital Credit, LP
- Brigade Capital Management
- The Carlyle Group
- Cerberus Business Finance, LLC
- Hayfin Capital Management LLP
- Intermediate Capital Group PLC
- LBC Credit Management, LP
- Mariner Investment Group, LLC
- Oaktree Capital Management, LP
- Pacific Investment Management Company
- Park Square Capital, LLC
- Summit Partners
- TCI Fund Management Limited
- · TPG Sixth Street Partners
- Värde Partners, Inc.

Non-U.S Developed Markets Fixed Income Managers

AllianceBernstein, LP

Emerging Markets Debt Managers

Franklin Templeton Investments

Multi-Sector Fixed Income Manager

Pacific Investment Management Company

Non-U.S. Inflation-Linked Securities Manager

Bridgewater Associates, LP

U.S. Treasury Inflation-Protected Securities Manager

Garda Capital Partners, LP

LIBOR-Plus Short-Term Investment Pool Managers

- Capula Investment Management, LLP
- · Penn Mutual Asset Management, LLC
- Radcliffe Capital Management

Master Limited Partnership Managers

- Atlantic Trust Private Wealth Management
- Harvest Fund Advisors, LLC
- Salient Capital Advisors, LLC

Currency Hedging Manager

• Pareto Investment Management, Ltd.

Risk Parity Managers

- BlackRock Financial Management, Inc.
- Bridgewater Associates, LP
- D.E. Shaw Investment Management, LLC

Real Estate Advisors

- Bell Partners, Inc.
- Charter Oak Advisors, Inc.
- GF Management, Inc.
- L&B Realty Advisors

Real Estate Fund Managers

- · Almanac Realty Investors, LLC
- Angelo, Gordon & Co., L.P.
- Ares Management, LLC
- Avenue Capital Group
- · Bell Partners, Inc.
- BlackRock Real Estate
- · Blackstone Group, The
- Brookfield Asset Management, Inc.
- Cabot Properties, Inc.
- Carlyle Group, The
- C-III Capital Partners, LLC
- DRA Advisors, LLC
- Equus Capital Partners, LTD
- Exeter Property Group
- Fortress Investment Group
- LAI Real Estate Investors, LLC
- Latitude Management Real Estate Investors
- LEM Capital Partners, LP
- O'Connor Capital Partners
- · Paramount Group, Inc.
- PGIM Real Estate
- RCG Longview Management, LLC
- Silverpeak Real Estate Partners
- Stockbridge Capital Partners
- Strategic Partners
- UBS Realty Investors, LLC

Farmland Advisor

· Prudential Agricultural Group

Venture Capital Fund Managers

- Adams Capital Management, Inc.
- Aisling Capital, LLC
- Cross-Atlantic Capital Partners
- Insight Venture Management, LLC
- KBL Healthcare
- Landmark Partners
- LLR Partners
- Mid-Atlantic Venture Funds
- Psilos Group Investors
- Quaker Bio-Ventures, Inc.
- SCP Private Equity Partners
- StarVest Associates
- Sterling Partners
- Strategic Partners
- Summit Partners
- · TDH, Inc.
- Tenaya Capital

Private Equity Fund Managers

- Actis LLP
- APAX Partners, LLP
- Bain Capital Partners, LLC
- · Baring Private Equity Asia Limited
- Blue Point Capital Partners LLC
- · Bridgepoint Capital Ltd
- Capital Group
- L Catterton Management Company LLC
- Cinven
- · Coller Investment Management LTD
- Crestview Advisors LLC
- CVC Capital Partners Group
- Denham Capital
- EagleTree Capital
- The Energy & Minerals Group
- Equistone Partners Europe Limited
- Evergreen Pacific Partners GP LLC
- First Reserve Corporation
- GoldPoint Partners LLC
- HgCapital
- Huntsman Gay Global Capital LLC
- Incline Management Corp
- IPC Advisors
- K4 Capital Advisors
- Landmark Partners
- Lindsay Goldberg & Bessemer
- Milestone Partners
- Morgan Stanley
- New Mountain Investments
- NGP Energy Capital Management
- Odyssey Investment Partners LLC
- Orchid Asia
- PAI Europe
- Palladium Equity Partners
- Partners Group Mgt VI LTD
- Permira
- Platinum Equity Capital Partners
- Portfolio Advisors, LLC
- StepStone Group
- Sterling Partners
- Strategic Partners
- Trilantic Capital Management, LLC
- Webster Capital Management, LLC

Special Situations Fund Managers

- · Apollo Global Management, LLC
- Arrowhead Mezzanine
- Avenue Capital Group
- Black Diamond Capital Management, LLC
- Cerberus Capital Management, L.P.
- Clearlake Capital Group, L.P.
- Gold Hill Venture Lending 03, LLC
- GoldPoint Partners, LLC
- Oaktree Capital Management LP
- · Searchlight Capital Partners, L.P.
- Venor Capital Management, LP
- Versa Capital Management, LLC
- Windjammer Capital Investors

Custodian Bank

• The Bank of New York Mellon Corporation

Securities Lending Agent

· Deutsche Bank AG

Investment Accounting Application Service Provider

STP Investment Services, LLC

Proxy Voting Agent

· Glass, Lewis & Co., LLC

General Investment Consultant

Aon Hewitt Investment Consulting (AHIC)

Private Markets Investment Consultant

Hamilton Lane Advisors, LLC

Real Estate Investment Consultant

Hamilton Lane Advisors, LLC.

Hedge Fund Consultant

Aksia, LLC

Risk Management System, Reporting and Advisory Services

BlackRock Solutions